

Patent claims

1. A cladding with an elastic boundary layer which forms the surface of the cladding, and a polymer actuator (14) which is integrated in the cladding for the deformation of the boundary layer,

characterized

in that the cladding bears on the cladded substrate (12) by means of a bearing area (A) which matches the surface area of the cladding in terms of magnitude, with only subregions of the bearing area being fixed to the substrate (12).

2. The cladding as claimed in claim 1,

characterized

in that the polymer actuator is in the form of a membrane actuator.

3. The cladding as claimed in claim 2,

characterized

in that this cladding is fixed to the substrate at regular intervals in a punctiform manner.

4. The cladding as claimed in one of the preceding claims,

characterized

in that the cladding is provided with through-holes (19).

5. The cladding as claimed in claim 1,

characterized

in that this cladding is composed of individual lamellae (22) which are each fixed to the substrate by means of one end, with the lamellae each being polymer actuators in the form of bending actuators.

6. A cladding comprising an elastic boundary layer which forms the surface of the cladding, and a polymer actuator (14) which is integrated in the cladding for the deformation of the boundary layer,

characterized

in that the cladding bears against the cladded substrate (12) by means of a bearing area (A) which matches the surface area of the cladding in terms of magnitude, with the cladding being firmly connected to the substrate (12) by means of the entire bearing area (A) and having at least one electrode layer (16a) for the polymer actuator (14), which electrode layer extends only over a subregion of the polymer actuator (14).

7. The cladding as claimed in claim 6,
characterized

in that the electrode layer (16a) forms the webs of a honeycomb-like structure on the polymer layer (15).

8. The cladding as claimed in either of claims 6 and 7,
characterized
in that the substrate (12) forms an electrode for a polymer layer (15) of the polymer actuator (14).

9. The cladding as claimed in one of the preceding claims,
characterized
in that the boundary layer is in the form of an auxiliary layer (24) on the polymer actuator.